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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
09/256,624	02/23/99	PARUPUDI G	1630

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EXAMINER	
SAFAVIAN,S	
ART UNIT	**PAPER NUMBER**
2153	2

DATE MAILED: 04/09/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary	Application No.	Applicant(s)	
	09/256,624	PARUPUDI ET AL.	
	Examiner	Art Unit	
	Seyed M Safavian	2153	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____ .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☐ Claim(s) _____ is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) 1-43 is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are objected to by the Examiner.

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

15)☒ Notice of References Cited (PTO-892)
16)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
17)☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
18)☐ Interview Summary (PTO-413) Paper No(s). _____ .
19)☐ Notice of Informal Patent Application (PTO-152)
20)☐ Other: .

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) The invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

2. Claims1, 4 and 9 are rejected under 35 U.S.C. 102(e) as being anticipated by Lawson (6185613).

3. As per claim 1, Lawson discloses a system for providing notifications of computer system events to clients, comprising, a central service for receiving system events and for firing event notifications in response thereto, a registration mechanism for clients to register for notification of one or more types of events, and a distribution mechanism for communicating a fired event notification to each client registered for notification thereof based on the type of event notification (see col.8, lines 16-18 ,36-44 and line 65 to col.9, line 9 and line 61 to col.10, line 6).

4. As per claim 4, Lawson further discloses a system wherein the client registers for notification for a type of event with the registration mechanism and includes condition information therewith, and the distribution mechanism includes a filtering mechanism for

selectively communicating an event notification based on at least one condition (see col.24, lines 21-38 and col.25, lines 21-36).

5. As per claim 9, Lawson further discloses a system wherein the central service receives system event information related to a network (see col. 15, line 66 to col.16, line 2 and fig.2, parts 24,32 and 26).

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7. Claims 3 and 6-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lawson (6185613).

8. As per claim 3, Lawson discloses a system for providing notifications of computer system events to clients, comprising, a central service for receiving system events and for firing event notifications in response thereto, a registration mechanism for clients to register for notification of one or more types of events, and a distribution mechanism for communicating a fired event notification to each client registered for notification thereof

based on the type of event notification (see col.8, lines 16-18 ,36-44 and line 65 to col.9, line 9 and line 61 to col.10, line 6).

Although the system disclosed by Lawson shows substantial features of the claimed invention (discussed above), it fails to disclose:

- the notification includes activating, starting or running a program or script.

Nonetheless, this features is well known in the art (script is a batch file) and the system of Lawson could use a batch file (script) as an appropriate method (see col.14, lines 29-48).

Given the teaching of Lawson, a person having ordinary skill in the art would have been readily recognized the desirability and advantages of modifying Lawson by employing the well known batch file for notification the clients because it would make event to trigger a script as a appropriate method for notification.

9. As per claims 6-8, Lawson discloses a system further comprising the central service receives at least some of the system events from an operating system (see col.9, lines 14-16 and fig.1 parts 1-4).

Although the system disclosed by Lawson shows substantial features of the claims invention (discussed above), it fails to disclose:

- the system event includes information related to the power state of the machine;
- the system event includes information related to the logon state of the machine.

Nonetheless, these features are well known in the art and the system of Lawson could include information related to the power state and logon state of the machine (see col.9, lines 14-16).

Given the teaching of Lawson, a person having ordinary skill in the art would have been readily recognized the desirability and advantages of modifying Lawson by employing information related to logon and power state of the event producer because the system can trigger an event related to these state of event producer

10. Claim 2,5, 15-17 and 23-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lawson (6185613) in view of Gani (Computer & Control Engineering Journal 1995).

11. As per claim 2, Lawson further discloses a system wherein the registration and distribution mechanism (global event registry and servers) in a heterogeneous network is incorporated in a database file in a format that is acceptable by all server and in turn by all clients (see col.8, lines 25-29 and line 67 to col.9 line2), and the central service is a publisher and each client is a subscriber (see col.11, lines 28-34).

Although the system disclosed by Lawson shows substantial feature of the claim invention (discussed above), it fails to disclose the registration and distribution mechanism is incorporated in a loosely coupled event database.

Loosely coupled events database referred in specification to as COM events database (see page 11 lines 14-19). Nonetheless, this feature is well known in the art and would

have been an obvious modification of the system disclosed by Lawson, as evidenced by Gani.

In an analogous art, Gani discloses a system for distribute data from server (SQL-database) through object broker and deliver it to computer client (see page, 110 col.2, 2nd paragraph and fig.2; page 111 col.1, lines 27-33 and col.2 server section "lines 20-27). Given the teaching of Gani, a person having ordinary skill in the art would have readily recognized the desirability and advantages of modifying Lawson by employing COM –database in order manage client and server objects regardless of platform or operation system.

12. As per claim 5, Gani discloses a system wherein the appropriate transfer method from the registration mechanism and distribution mechanism are incorporated in a loosely coupled events database (see page, 110 col.2, 2nd paragraph and fig.2; page 111 col.1, lines 27-33 and col.2, server section "lines 20-27).

13. As per claim 15-17, Gani discloses a system further comprising that the client includes a COM object, and the firing of an event results in a call to a method of the COM object (see page 110, col.2 lines 14-24 and fig. 2), it is inherent the Com object included interfaces and method accessible link that corresponds to a type of data.

14. As per claim 23, Lawson discloses a system having computer executable instructions for performing steps comprising:

- receiving system information at a central service (see fig.1, parts 6, c and 16);
- publishing an event notification in response thereto, the even notification having an event type associated therewith (see col8, lines 16-18 ; line 67 to col.9, line2 ; lines 18-21 and lines 37-41);
- matching the event notification with at least one client that has subscribed for event notification based on the type of event (see col.9, lines 61-65);
- communicating the event notification to each client that has subscribed therefor (see col.13, lines 12-21); and
- It is obvious the system discloses by Lawson received the event notification at a loosely coupled events database for similar reason as stated for claim 2 above.

15. As per claim 24, Lawson discloses a system further having instructions for performing the step of, filtering event notification by selectively communicating events notifications based on at least one condition (see col.24, lines 21-27 and col.25, lines 21-36).

16. As per claim 25, Lawson further discloses a system wherein the central services receives the system information as system events from an operating system (col.9, lines 14-16 and fig.1, parts 1-4). It is apparent that the system information as system events could be an operation system.

17. As per claim 26, Lawson further discloses a system wherein the system information includes information related to a network (see col.15, line 66 to col.16, line 2 and fig.2, parts 24,32 and 26).

18. As per claim 27, Lawson discloses a system wherein the information includes information related to a network and the network is a wide area network, and wherein the step of receiving system information at a central service comprises the step of receiving remote access services events (see col.8, lines 8-13 and col.16, lines 52-59).

19. Claims10-14 and 18-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lawson (6185613) in view of McCreery (5787253).

20. As per claims 10-11, although the system disclosed by Lawson shows substantial features of the claimed invention (discussed above), it fails to disclose:

- the central service includes a plurality of time-based caches for caching network information, and a mechanism for evaluating the caches to determine a connectivity state of a network; and
- the time –based caches maintain counts corresponding to network activity.

Nonetheless these features are well known in the art and would have been obvious modification of the system disclosed by Lawson, as evidenced by McCreery.
In an analogous art, Mccreery discloses a network system for monitoring network activity and information and status of the network by data buffering in a table and

provides all packets information data to management module including performance and usage (see col.6, lines 37-47 and fig.4a, part 308 and col.9, lines 6-19). Given the teaching of McCreery, a person having ordinary skill in the art would have readily recognized the desirability and advantages of modifying Lawson by employing monitoring network activity because it would reduce the traffic on the network, and customize the type of data that collected and analyzed.

21. As per 12, it is inherent the monitoring system disclosed by McCreery include counts of incoming and outgoing packets, incoming and outgoing errors (see col.2, lines 39-46).

22. As per claims 13-14, McCreery provides a rule of network monitoring based on threshold notification wherein the traffic levels for entire network media exceeds predetermined threshold or is below other threshold (see col.5, lines 44-57). Therefore notification can be made if incoming or outgoing packet counts have increased or decreased.

23. As per claims 18 and 19, McCreery discloses a system wherein the packet analyzer communicates with a packet data buffer in order to determining:

- a network destination is reachable, and is associated with a list of network destinations (see col.9, lines 29-39).

24. As per claim 20, McCreery discloses a system wherein the packet data buffer provides the information regarding the destination for further processing by the packet analyzer wherein could use to determining whether a network destination is reachable regularly polls each destination in the list to make a determination as to the reachable thereof (see col.9, lines 40-49).

25. As per claims 21, McCreery discloses a system for resolving IP addresses using DNS (Domain Name Service) wherein could determines that a destination in not reachable if the name of the destination is not resolvable into an Internet Protocol address (see col12, lines 49-59).

26. As per claim 22, McCreery discloses a system wherein the packet filter of networking is arranges to keep only the site destination and source addresses, wherein could determine that a destination is reachable if the Internet Protocol address of the destination corresponds to a local subnet (see col.12, lines 23-32).

27. Claims 28-36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lawson (6185613) in view of Gani (Computer & Control Engineering Journal 1995) further in view of McCreery (5787253).

28. As per claims 28-29, although the combine teaching of Lawson and Gani shows substantial features of the claimed invention (discussed above), it fails to disclose:

- the system having further instructions for performing the step of caching network information corresponding to activity on the local area network.
- the systems having further instructions for evaluating cached network information to determine a connectivity state of a network.

Nonetheless, these features are well known in the art and would have been obvious modification to the system disclosed by Lawson in view of Gain as evidenced by McCreery.

In an analogous art, McCreery discloses a network system for monitoring network activity and information and status of the network by data buffering in a table and provides all packets information data to management module including performance and usage (see col.6, lines 37-47 and fig.4a, part 308 and col.9, lines 6-19).

Given the teaching of McCreery, a person having ordinary skill in the art would have readily recognized the desirability and advantages of modifying Lawson in view of Gani by employing monitoring network activity because it would reduce the traffic on the network, and customize the type of data that collected and analyzed.

29. As per claim 30, McCreery discloses a system wherein the central service publishes an event (alarm generator fif.4a part 330) when the state of network connectivity has changed from a previous value thereof (see col.7, lines 41-56; col.8, lines 1-6 and col.5, lines 44-57).

30. As per claim 31, Gani discloses a system the client includes a COM object and wherein the step of communicating the event notification to each client comprises the step of calling a method of the COM object (see page, 110 col.2, 2nd paragraph and fig.2, ; page, 111 col.1, lines 27-33 and col.2, server section "lines 20-27).

- As per claims 32, McCreery further discloses a system wherein the packet data buffer provides the information regarding the destination address for further processing by the packet analyzer that could use to determining a network destination is reachable (see col.9, lines 40-49).

31. As per claims 33-34, McCreery discloses a system that the alarm generator through management module notify parties about threshold information (see col.4, lines 18-31; col.6, lines 60-67; col.8, lines 1-9 and col.9, lines 29-42), wherein could be use to publish an event when the network destination changes from reachable to unreachable or from unreachable to reachable.

32. Claims 35-36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lawson, Gani and McCreery in view of Stupek (6131118).

Although the combine teaching of Lawson, Gani and McCreery show substantial features of the claimed invention (discussed above), it fails to disclose:

- the step of determining whether the network destination is reachable comprises the step of pinging the destination; and
- the step of determining whether the network destination is reachable comprises the step of periodically pinging the destination.

Nonetheless, these features are well known in the art and would have been an obvious modification to the system disclosed by Lawson in view of Gani and further in view of McCreery as evidenced by Stupek.

In an analogous art, Stupek discloses a system for monitoring network activity and state of all managed devices by using IP pinging (see col.5, lines 47-58), and periodically continue to collects all state of devices (see col.5, lines 60-63).

Given the teaching of Stupek, a person having ordinary skill in the art would have readily recognized the desirability and advantage of modifying Lawson in view of Gani and further in view of McCreery by employing the well known features of pinging devices for track the devices state because it would have assured the functionally of managed devices in the network.

Claim Rejections - 35 USC § 102

33. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

34. Claims 37-43 are rejected under 35 U.S.C. 102(e) as being anticipated by Davies (6058420).

35. As per claim 37, Davies discloses a system for providing information on a state of network connectivity, comprising the steps of, maintaining values indicative of network activity at a first time, obtaining value indicative of network at a second time, evaluating the differences between the values at the first time and the second time to determine the state of network connectivity, and selectively outputting the state of network connectivity (see col.6, line 64 to col.7, line 1; col.9, lines 20-23 and col.10, lines 23-29).

36. As per claims 38-39, Davies further discloses a system wherein the step of evaluation the difference between the values at the first time and second time comprises the step of determining a number of reachable packet and unreachable packet over a period of time (see col.11, lines 47-54). It is apparent the system disclosed by Davies compare the first and second time polling in order to determining a number of incoming and outgoing packet counts over a period of time.

37. As per claim 40, Davies further discloses a system, wherein the step of evaluating the differences between the values at the first time and second time

comprises the step of determining a number of errors over a period of time (see col.11, lines 58-62).

38. As per claim 41, Davies further discloses a system wherein the step of evaluating the differences between the values at the first time and the second time comprises the step of comparison between reachable and unreachable interface (see col. 9, lines 49-56 and col.10, lines 23-29). Wherein can be use to determining a relative to number of incoming and outgoing packet counts over a period of time.

39. As per claim 42, Davies further discloses a system wherein an alarm generating an event regarding the condition of network connectivity (see col.13, lines 6-14; lines 39-55 and col.15, lines 15-22). Wherein can be for firing an event when the state of network connectivity has changed from a pervious value thereof.

40. As per claim 43, Davies further discloses a system wherein the step of selectively outputting the state of network connectivity comprises the step of returning the state of network connectivity as result in response to a call from a client (see col. 14, lines 47-53).

Conclusion

41. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

□ a) Walker et al. U.S. Patent No. 6061723. May 9, 2000. Network management event correlation in environments containing inoperative network elements.

42. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Seyed M Safavian whose telephone number is (703) 305-0081. The examiner can normally be reached on 8:00-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glen Burgess can be reached on (703) 305-4792. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 305-7201 for regular communications and (703) 308-6606 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

Dung C. Dinh
Primary Examiner